

See

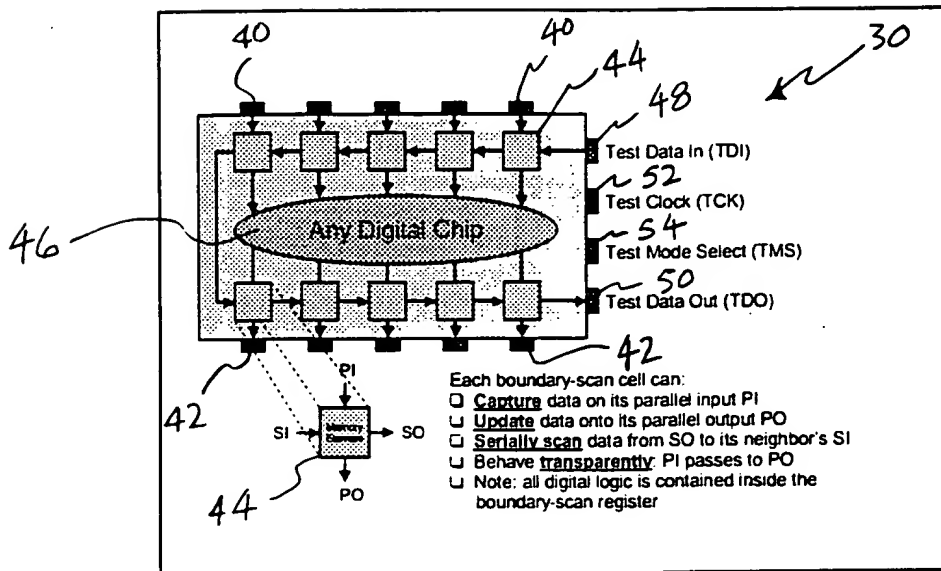


Figure 2: Principle of Boundary-Scan Architecture
 1 (PRIOR ART)

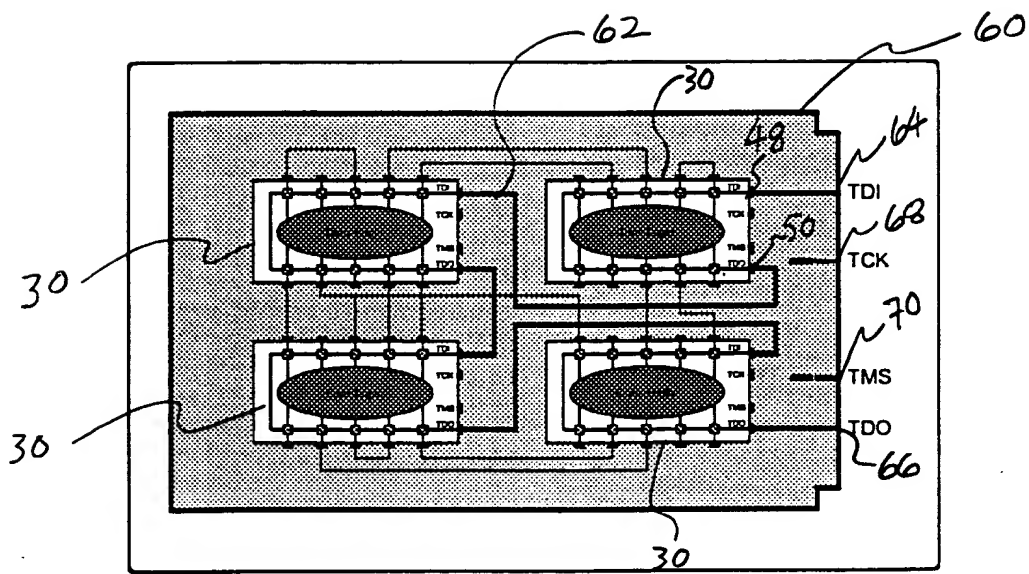


Figure 2: [Using the Boundary Scan Path]
2 (PRIOR ART)

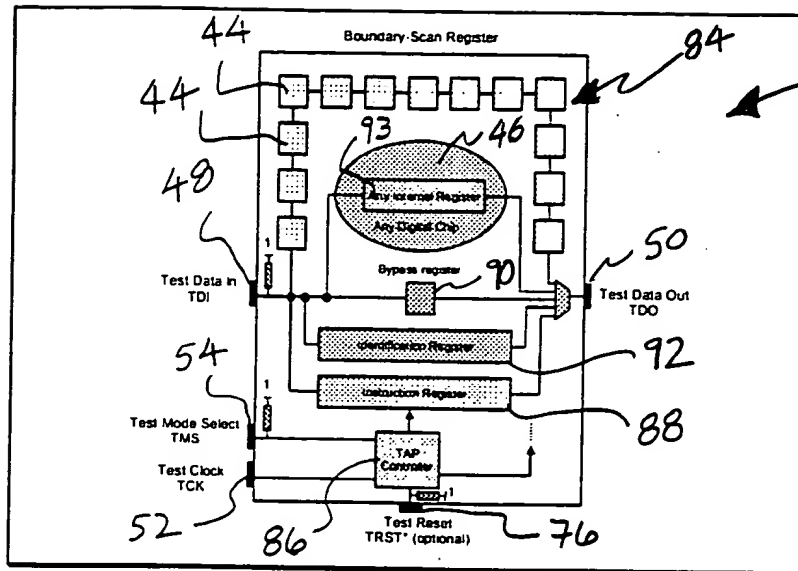


Figure 8: ~~IEEE 1149.1~~ Chip Architecture
3 (PRIORITY)

FIG. 4

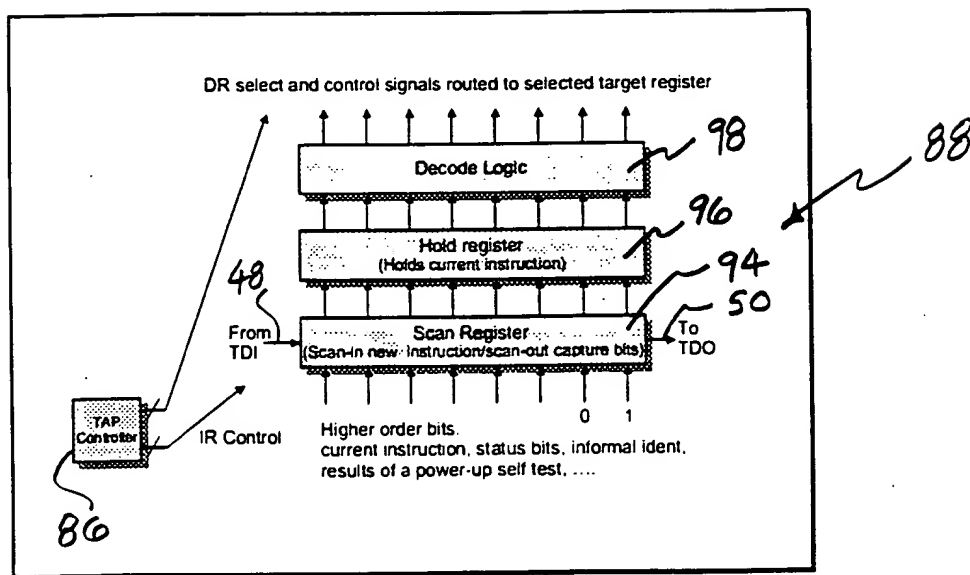


Figure 8: [The Instruction Register]
4 (Prior Art)

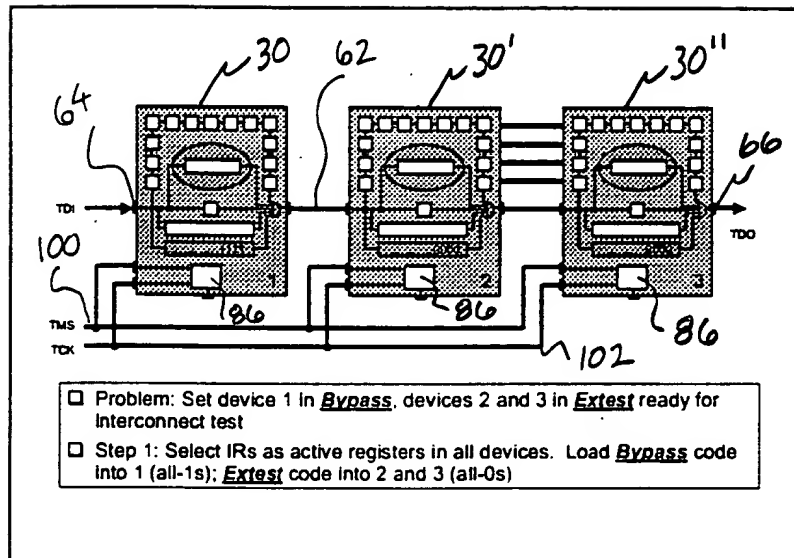


Figure 10: Using the Instruction Register — Step 1
 5 (PRIOR ART)

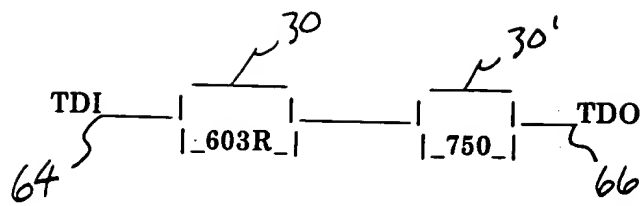


Fig. 16

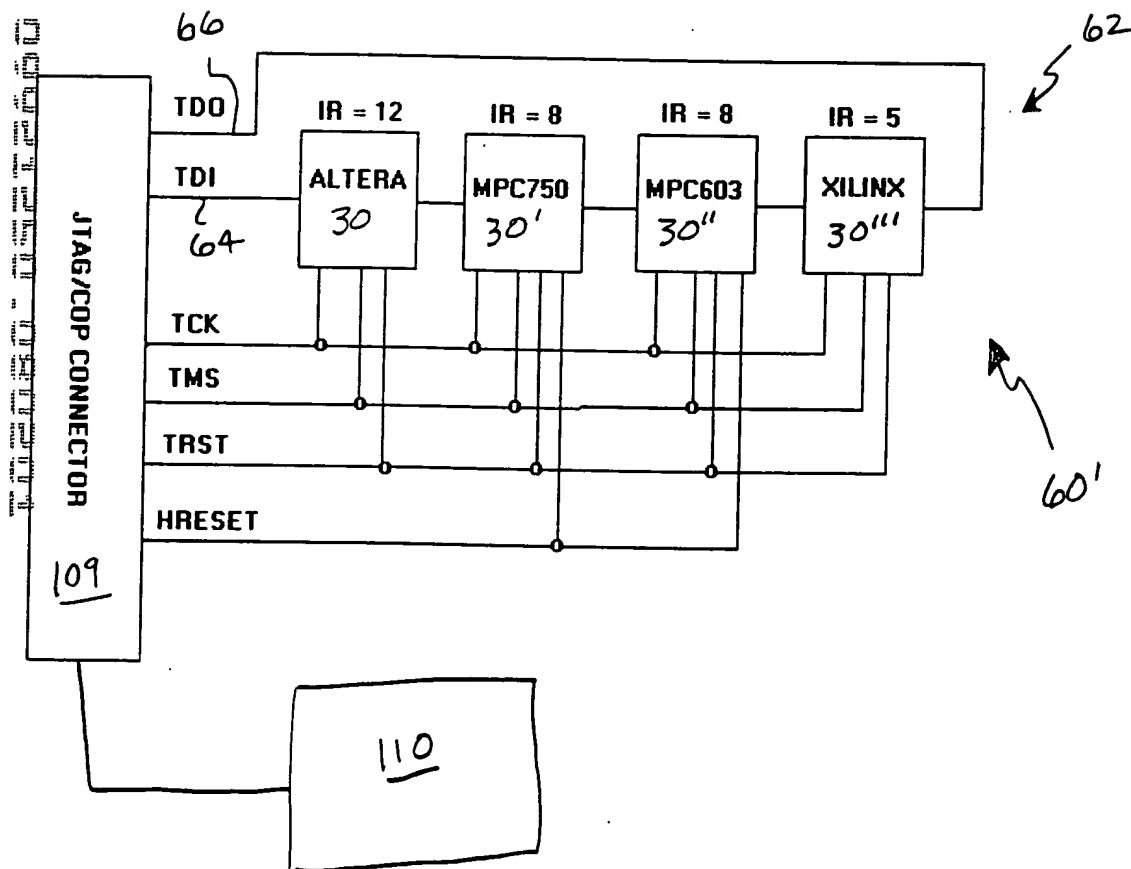


Fig. 27A

170 - couple emulator to scan chain

172 - obtain topology of scan chain

174 - Automatically determine topology!

176 - Select one device within scan chain

Generate Selection Instruction 178

Send Selection Instruction 180

182 - Place an other device within the scan chain into BYPASS mode

184 - Generate BYPASS instruction

186 - Send BYPASS Instruction

188 - Send emulation instructions to the scan chain

190 - place the one device into Data mode

192 - Format emulation instructions to compensate for other device(s)!

Fig. 7B

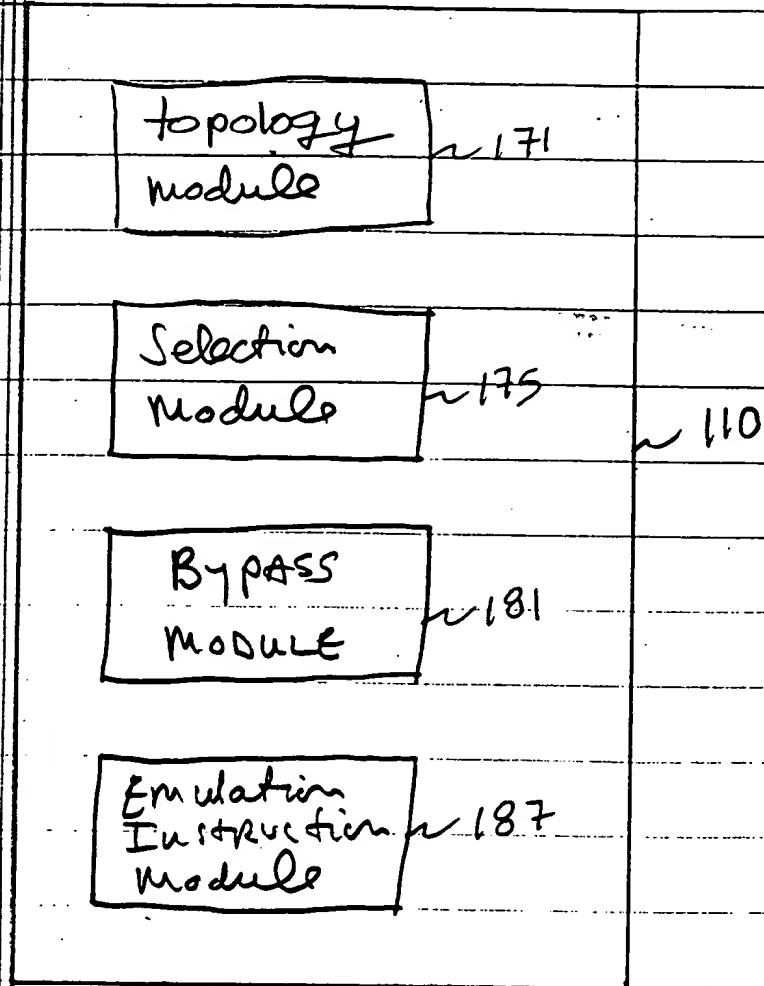


Fig. 7C

The screenshot shows the 'visionXTreme Emulator Tool' window. At the top is a menu bar with 'File', 'Components', and 'Help'. Below the menu is a toolbar with icons for file operations and a help icon. The main area displays a configuration window with three device slots: 'MPC750' (8), 'XC4013XLA' (3), and 'MPC107' (8). Handwritten annotations '4 30', '4 30', and '2 30' are present. Below the slots are input fields for 'Device Number 0x', 'Device Number', 'Number of Devices' (set to 9), and 'Total IR Bits' (set to 19). At the bottom is a 'Device Catalog' window with a table of devices and their properties.

Part Number	Part Type	Instruction Register	PCODE
LATTICE	MACH4-256	5	00000000
XILINX	XC4013XLA240	3	00000000
ALTERA	EPM719255160	10	3498798345
POWERPC	MPC8260	8	00000000
POWERPC	MPC750	8	00000000
POWERPC	MPC107	8	00000000

Fig. 8 10

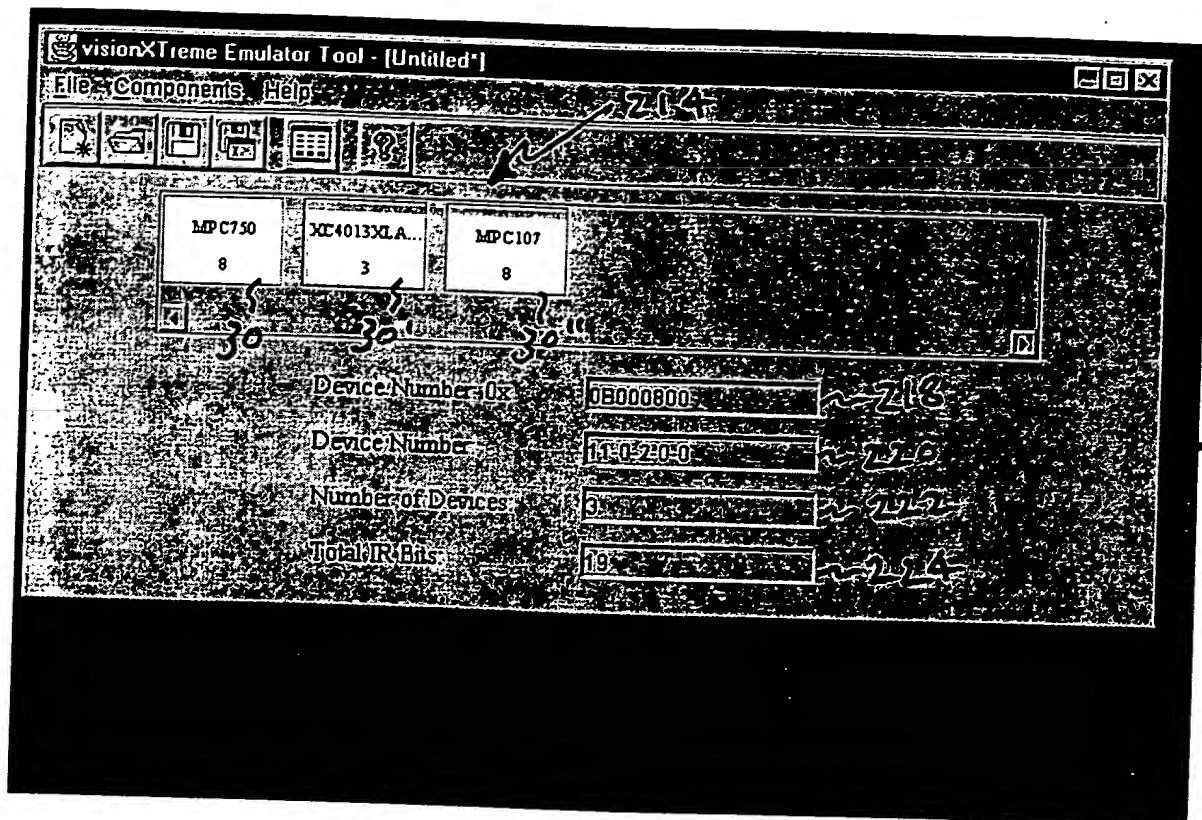


Fig. 8 11

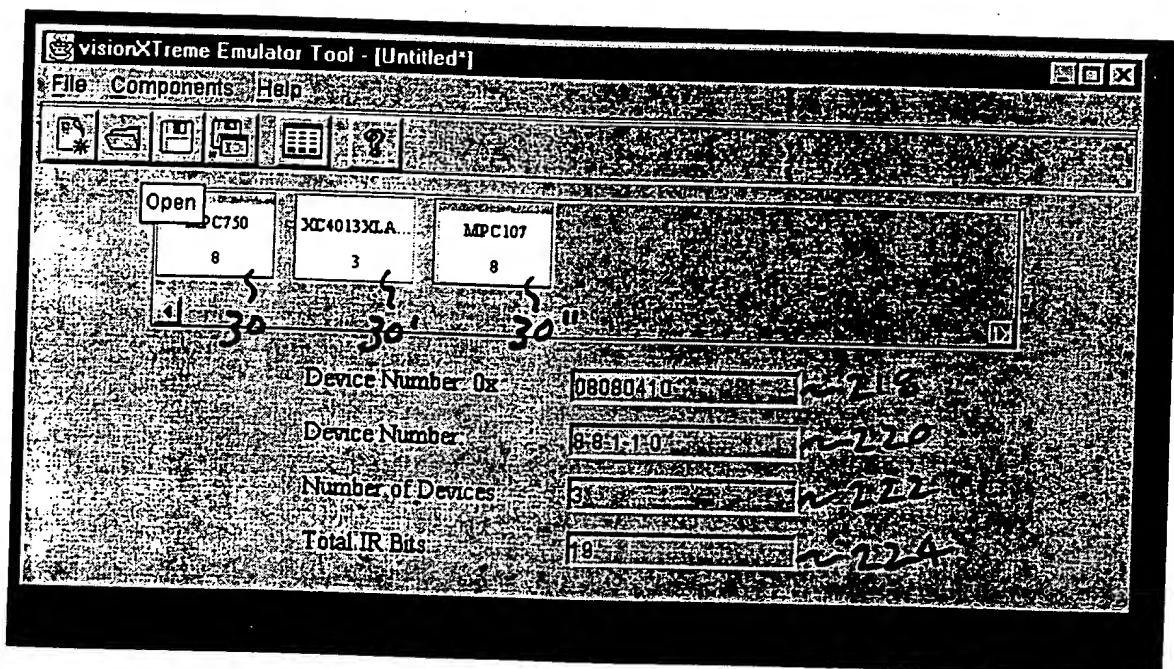


Fig. 8 12

FOUO 03242000